1/3-inch Sony CCD Video Camera 700TV Lines F1.2 (PAL)

User Manual

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Product Page:
http://www.hobbyking.com/hobbyking/store/__13197__1_3_inch_Sony_CCD_Video_Camera_700TV_Lines_F1_2_PAL_.html

Specifications

Specifications from Hobbyking:

This camera uses a large 6mm lense offering superb low light capabilities.

Included:
1 x SONY CCD 1/3inch Camera

Specs:
Camera Type: Color PAL
Pick Up Device: 1/3" Sony EXviewHAD CCDII*
Pic Elements: 976(H) x 582(V)
Resolution: 700TV Lines
Min Illumination: 0.1 Lux / F1.2
White Bal: Auto/preset/indoor/outdoor/fluorecent (Requires optional OSD Cable)
Lens: F1.2/6mm
Dimensions: 38x38mm
Weight: 70g(with 6mm lens)
Voltage: DC8.5V-DC20V
Power: DC12V 70mA +/-5mA

Connectors

All connectors are JST 1.25mm pitch. Pin 1 is denoted by square pad on PCB.

Power/Video Connector

1 = Power In (Red wire)
2 = GND (Black wire)
3 = Video Out (Yellow wire)

Pin 1 is left, when PCB is seen from behind. Wire colors are of included wire, Mini JST plugs for micro servos can be used for spare cable.

OSD Connector

6 = GND
5 = Menu Down
4 = Menu Up
3 = Select
2 = Cycle +
1 = Cycle -

Short pin to GND to activate. Pin 6 is at top when PCB is seen from behind. Turnigy OSD cable (Product ID: 324000008) does NOT work.

Unknown Connector

1 = ???
2 = ???
3 = ???
4 = ???

OSD Setup Menu

Lens	[*Manual, Auto/]
Shutter/AGC	[*Auto/, Manual/]
White Bal	[*ATW/, Push, User1/, User2/, Manual/, Push Lock]
Backlight	[*OFF, HLC, BLC]
Pict Adjust	[/]
ATR (Adaptive Tone Reproduction)	[*OFF, ON/]
Motion Det	[*OFF, ON/]
Privacy	[*OFF, ON/]
Day/Night	[*Auto/, Color, B/W/, EXT1, EXT2]
NR (Noise Reduction)	[/]
Camera ID	[*OFF, ON/]
Sync	[*INT]
Language	[*Chinese, English, ...]
Camera Reset	
Exit	[Save All]

* = Default
/ = Submenu by Select

Tips & Tricks

Suggested OSD Settings

These settings are suggested for much improved image quality and better FPV usage.

White Bal: ATW/Environment = Outdoor
Backlight: HLC (Blocks sunlight)
Pict Adjust: Sharpness = 20 (Default sharpness is much too high and distorts image)
ATR: ON (Seems to give better colors)
Language: English

Changing Lens

Lens assembly is made of metal and quite heavy. The lens assembly from the $17 Sony camera (http://www.hobbyking.com/hobbyking/store/uh_viewitem.asp?idproduct=11977) will fit perfectly for a weight reduction from 70g to 15g total. The lighter lens is also more wide angle suitable for FPV.